

# ABSTRACT

An optical transmission system for optically transmitting at least one data signal includes pulse train generating means for converting each of the at least one data signal respectively to a pulse train, based on at least one encoding pattern that is uniquely predetermined corresponding to the at least one data signal, and outputting the pulse train, optical modulating means for converting the pulse train output from the pulse train generating means to an optically modulated signal and outputting the signal, an optical transmission path for transmitting the optically modulated signal that is output from the optical modulating means, optical detecting means for converting the optically modulated signal transmitted on the optical transmission path to an electrical signal and outputting the signal, and data signal extracting means for obtaining the pulse train from the electrical signal that is output from the optical detecting means based on a decoding pattern that uniquely corresponds to the encoding pattern and extracting the data signal.